



OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/781,796B

DATE: 06/06/2002
TIME: 15:05:54

Input Set : A:\EP.txt
Output Set: N:\CRF3\06062002\I781796B.raw

p.6

3 <110> APPLICANT: BEAUDOIN, Adrien R.
4 SVIGNY, Jean
5 BACH, Fritz H.
6 ROBSON, Simon
8 <120> TITLE OF INVENTION: ATP-DIPHOSPHOHYDROLASES, PROCESS OF PURIFICATION
9 THEREOF AND PROCESS OF PRODUCING THEREOF BY RECOMBINANT
10 TECHNOLOGY
12 <130> FILE REFERENCE: 920333.90019
14 <140> CURRENT APPLICATION NUMBER: 09/781,796B
15 <141> CURRENT FILING DATE: 2001-02-12
17 <150> PRIOR APPLICATION NUMBER: 08/419,204
18 <151> PRIOR FILING DATE: 1995-04-10
20 <150> PRIOR APPLICATION NUMBER: CA96/00223
21 <151> PRIOR FILING DATE: 1996-04-10
23 <150> PRIOR APPLICATION NUMBER: 08/930,921
24 <151> PRIOR FILING DATE: 1998-02-01
26 <160> NUMBER OF SEQ ID NOS: 8
28 <170> SOFTWARE: PatentIn Ver. 2.1
30 <210> SEQ ID NO: 1
31 <211> LENGTH: 510
32 <212> TYPE: PRT
33 <213> ORGANISM: Homo sapiens
35 <400> SEQUENCE: 1
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37 1 5 10 15
39 Ile Leu Ala Ile Leu Gly Phe Ser Ser Ile Ile Ala Val Ile Ala Leu
40 20 25 30
42 Leu Ala Val Gly Leu Thr Gln Asn Lys Ala Leu Pro Glu Asn Val Lys
43 35 40 45
45 Tyr Gly Ile Val Leu Asp Ala Gly Ser Ser His Thr Ser Leu Tyr Ile
46 50 55 60
48 Tyr Lys Trp Pro Ala Glu Lys Glu Asn Asp Thr Gly Val Val His Gln
49 65 70 75 80
51 Val Glu Glu Cys Arg Val Lys Gly Pro Gly Ile Ser Lys Phe Val Gln
52 85 90 95
54 Lys Val Asn Glu Ile Gly Ile Tyr Leu Thr Asp Cys Met Glu Arg Ala
55 100 105 110
57 Arg Glu Val Ile Pro Arg Ser Gln His Gln Glu Thr Pro Val Tyr Leu
58 115 120 125
60 Gly Ala Thr Ala Gly Met Arg Leu Leu Arg Met Glu Ser Glu Glu Leu
61 130 135 140
63 Ala Asp Arg Val Leu Asp Val Val Glu Arg Ser Leu Ser Asn Tyr Pro
64 145 150 155 160

ENTERED

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66 Phe Asp Phe Gln Gly Ala Arg Ile Ile Thr Gly Gln Glu Glu Gly Ala
67                               165 170 175
69 Tyr Gly Trp Ile Thr Ile Asn Tyr Leu Leu Gly Lys Phe Ser Gln Lys
70                               180 185 190
72 Thr Arg Trp Phe Ser Ile Val Pro Tyr Glu Thr Asn Asn Gln Glu Thr
73                               195 200 205
75 Phe Gly Ala Leu Asp Leu Gly Gly Ala Ser Thr Gln Val Thr Phe Val
76                               210 215 220
78 Pro Gln Asn Gln Thr Ile Glu Ser Pro Asp Asn Ala Leu Gln Phe Arg
79 225                               230 235 240
81 Leu Tyr Gly Lys Asp Tyr Asn Val Tyr Thr His Ser Phe Leu Cys Tyr
82                               245 250 255
84 Gly Lys Asp Gln Ala Leu Trp Gln Lys Leu Ala Lys Asp Ile Gln Val
85                               260 265 270
87 Ala Ser Asn Glu Ile Leu Arg Asp Pro Cys Phe His Pro Gly Tyr Lys
88                               275 280 285
90 Lys Val Val Asn Val Ser Asp Leu Tyr Lys Thr Pro Cys Thr Lys Arg
91                               290 295 300
93 Phe Glu Met Thr Leu Pro Phe Gln Gln Phe Glu Ile Gln Gly Ile Gly
94 305                               310 315 320
96 Asn Tyr Gln Gln Cys His Gln Ser Ile Leu Glu Leu Phe Asn Thr Ser
97                               325 330 335
99 Tyr Cys Pro Tyr Ser Gln Cys Ala Phe Asn Gly Ile Phe Leu Pro Pro
100                               340 345 350
102 Leu Gln Gly Asp Phe Gly Ala Phe Ser Ala Phe Tyr Phe Val Met Lys
103                               355 360 365
105 Phe Leu Asn Leu Thr Ser Glu Lys Val Ser Gln Glu Lys Val Thr Glu
106                               370 375 380
108 Met Met Lys Lys Phe Cys Ala Gln Pro Trp Glu Glu Ile Lys Thr Ser
109 385                               390 395 400
111 Tyr Ala Gly Val Lys Glu Lys Tyr Leu Ser Glu Tyr Cys Phe Ser Gly
112                               405 410 415
114 Thr Tyr Ile Leu Ser Leu Leu Leu Gln Gly Tyr His Phe Thr Ala Asp
115                               420 425 430
117 Ser Trp Glu His Ile His Phe Ile Gly Lys Ile Gln Gly Ser Asp Ala
118                               435 440 445
120 Gly Trp Thr Leu Gly Tyr Met Leu Asn Leu Thr Asn Met Ile Pro Ala
121                               450 455 460
123 Glu Gln Pro Leu Ser Thr Pro Leu Ser His Ser Thr Tyr Val Phe Leu
124 465                               470 475 480
126 Met Val Leu Phe Ser Leu Val Leu Phe Thr Val Ala Ile Ile Gly Leu
127                               485 490 495
129 Leu Ile Phe His Lys Pro Ser Tyr Phe Trp Lys Asp Met Val
130                               500 505 510
133 <210> SEQ ID NO: 2
134 <211> LENGTH: 1818
135 <212> TYPE: PRT
136 <213> ORGANISM: Homo sapiens
138 <400> SEQUENCE: 2

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file://C:\Crf3\Outhold\Vsrl781796B.htm

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139 Ala Cys Cys Ala Cys Ala Cys Cys Ala Ala Gly Cys Ala Gly Cys Gly
140 1 5 10 15
142 Gly Cys Thr Gly Gly Gly Gly Gly Gly Gly Ala Ala Ala Gly
143 20 25 30
145 Ala Cys Gly Ala Gly Gly Ala Ala Ala Gly Ala Gly Gly Ala Gly Gly
146 35 40 45
148 Ala Ala Ala Ala Cys Ala Ala Ala Ala Gly Cys Thr Gly Cys Thr Ala
149 50 55 60
151 Cys Thr Thr Ala Thr Gly Gly Ala Ala Gly Ala Thr Ala Cys Ala Ala
152 65 70 75 80
154 Ala Gly Gly Ala Gly Thr Cys Thr Ala Ala Cys Gly Thr Gly Ala Ala
155 85 90 95
157 Gly Ala Cys Ala Thr Thr Thr Thr Gly Cys Thr Cys Cys Ala Ala Gly
158 100 105 110
160 Ala Ala Thr Ala Thr Cys Cys Thr Ala Gly Cys Cys Ala Thr Cys Cys
161 115 120 125
163 Thr Thr Gly Gly Cys Thr Thr Cys Thr Cys Cys Thr Cys Thr Ala Thr
164 130 135 140
166 Cys Ala Thr Ala Gly Cys Thr Gly Thr Gly Ala Thr Ala Gly Cys Thr
167 145 150 155 160
169 Thr Thr Gly Cys Thr Thr Gly Cys Thr Gly Thr Gly Gly Gly Thr
170 165 170 175
172 Thr Gly Ala Cys Cys Cys Ala Gly Ala Ala Cys Ala Ala Ala Gly Cys
173 180 185 190
175 Ala Thr Thr Gly Cys Cys Ala Gly Ala Ala Ala Ala Cys Gly Thr Thr
176 195 200 205
178 Ala Ala Gly Thr Ala Thr Gly Gly Gly Ala Thr Thr Gly Thr Gly Cys
179 210 215 220
181 Thr Gly Gly Ala Thr Gly Cys Gly Gly Gly Thr Thr Cys Thr Thr Cys
182 225 230 235 240
184 Thr Cys Ala Cys Ala Cys Ala Ala Gly Thr Thr Thr Ala Thr Ala Cys
185 245 250 255
187 Ala Thr Cys Thr Ala Thr Ala Ala Gly Thr Gly Gly Cys Cys Ala Gly
188 260 265 270
190 Cys Ala Gly Ala Ala Ala Ala Gly Gly Ala Gly Ala Ala Thr Gly Ala
191 275 280 285
193 Cys Ala Cys Ala Gly Gly Cys Gly Thr Gly Gly Thr Gly Cys Ala Thr
194 290 295 300
196 Cys Ala Ala Gly Thr Ala Gly Ala Ala Gly Ala Ala Thr Gly Cys Ala
197 305 310 315 320
199 Gly Gly Gly Thr Thr Ala Ala Ala Gly Gly Thr Cys Cys Thr Gly Gly
200 325 330 335
202 Ala Ala Thr Cys Thr Cys Ala Ala Ala Ala Thr Thr Thr Gly Thr Thr
203 340 345 350
205 Cys Ala Gly Ala Ala Ala Gly Thr Ala Ala Ala Thr Gly Ala Ala Ala
206 355 360 365
208 Thr Ala Gly Gly Cys Ala Thr Thr Thr Ala Cys Cys Thr Gly Ala Cys
209 370 375 380
211 Thr Gly Ala Thr Thr Gly Cys Ala Thr Gly Gly Ala Ala Ala Gly Ala

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212 385          390          395          400
214 Gly Cys Thr Ala Gly Gly Gly Ala Ala Gly Thr Gly Ala Thr Thr Cys
215          405          410          415
217 Cys Ala Ala Gly Gly Thr Cys Cys Cys Ala Gly Cys Ala Cys Cys Ala
218          420          425          430
220 Ala Gly Ala Gly Ala Cys Ala Cys Cys Cys Gly Thr Thr Thr Ala Cys
221          435          440          445
223 Cys Thr Gly Gly Gly Ala Gly Cys Cys Ala Cys Gly Gly Cys Ala Gly
224          450          455          460
226 Gly Cys Ala Thr Gly Cys Gly Gly Thr Thr Gly Cys Thr Cys Ala Gly
227 465          470          475          480
229 Gly Ala Thr Gly Gly Ala Ala Ala Gly Thr Gly Ala Ala Gly Ala Gly
230          485          490          495
232 Thr Thr Gly Gly Cys Ala Gly Ala Cys Ala Gly Gly Gly Thr Thr Cys
233          500          505          510
235 Thr Gly Gly Ala Thr Gly Thr Gly Gly Thr Gly Gly Ala Gly Ala Gly
236          515          520          525
238 Gly Ala Gly Cys Cys Thr Cys Ala Gly Cys Ala Ala Cys Thr Ala Cys
239          530          535          540
241 Cys Cys Cys Thr Thr Thr Gly Ala Cys Thr Thr Cys Cys Ala Gly Gly
242 545          550          555          560
244 Gly Thr Gly Cys Cys Ala Gly Gly Ala Thr Cys Ala Thr Thr Ala Cys
245          565          570          575
247 Thr Gly Gly Cys Cys Ala Ala Gly Ala Gly Gly Ala Ala Gly Gly Thr
248          580          585          590
250 Gly Cys Cys Thr Ala Thr Gly Gly Cys Thr Gly Gly Ala Thr Thr Ala
251          595          600          605
253 Cys Thr Ala Thr Cys Ala Ala Cys Thr Ala Thr Cys Thr Gly Cys Thr
254          610          615          620
256 Gly Gly Gly Cys Ala Ala Ala Thr Thr Cys Ala Gly Thr Cys Ala Gly
257 625          630          635          640
259 Ala Ala Ala Ala Cys Ala Ala Gly Gly Thr Gly Gly Thr Thr Cys Ala
260          645          650          655
262 Gly Cys Ala Thr Ala Gly Thr Cys Cys Cys Ala Thr Ala Thr Gly Ala
263          660          665          670
265 Ala Ala Cys Cys Ala Ala Thr Ala Ala Thr Cys Ala Gly Gly Ala Ala
266          675          680          685
268 Ala Cys Cys Thr Thr Thr Gly Gly Ala Gly Cys Thr Thr Thr Gly Gly
269          690          695          700
271 Ala Cys Cys Thr Thr Gly Gly Gly Gly Gly Ala Gly Cys Cys Thr Cys
272 705          710          715          720
274 Thr Ala Cys Ala Cys Ala Ala Gly Thr Cys Ala Cys Thr Thr Thr Thr
275          725          730          735
277 Gly Thr Ala Cys Cys Cys Ala Ala Ala Ala Cys Cys Ala Gly Ala
278          740          745          750
280 Cys Thr Ala Thr Cys Gly Ala Gly Thr Cys Cys Cys Cys Ala Gly Ala
281          755          760          765
283 Thr Ala Ala Thr Gly Cys Thr Cys Thr Gly Cys Ala Ala Thr Thr Thr
284          770          775          780

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```

286 Cys Gly Cys Cys Thr Cys Thr Ala Thr Gly Gly Cys Ala Ala Gly Gly
287 785 790 795 800
289 Ala Cys Thr Ala Cys Ala Ala Thr Gly Thr Cys Thr Ala Cys Ala Cys
290 805 810 815
292 Ala Cys Ala Thr Ala Gly Cys Thr Thr Cys Thr Thr Gly Thr Gly Cys
293 820 825 830
295 Thr Ala Thr Gly Gly Gly Ala Ala Gly Gly Ala Thr Cys Ala Gly Gly
296 835 840 845
298 Cys Ala Cys Thr Cys Thr Gly Gly Cys Ala Gly Ala Ala Cys Thr
299 850 855 860
301 Gly Gly Cys Cys Ala Ala Gly Gly Ala Cys Ala Thr Thr Cys Ala Gly
302 865 870 875 880
304 Gly Thr Thr Gly Cys Ala Ala Gly Thr Ala Ala Thr Gly Ala Ala Ala
305 885 890 895
307 Thr Thr Cys Thr Cys Ala Gly Gly Gly Ala Cys Cys Cys Ala Thr Gly
308 900 905 910
310 Cys Thr Thr Thr Cys Ala Thr Cys Cys Thr Gly Gly Ala Thr Ala Thr
311 915 920 925
313 Ala Ala Gly Ala Ala Gly Gly Thr Ala Gly Thr Gly Ala Ala Cys Gly
314 930 935 940
316 Thr Ala Ala Gly Thr Gly Ala Cys Cys Thr Thr Thr Ala Cys Ala Ala
317 945 950 955 960
319 Gly Ala Cys Cys Cys Cys Cys Thr Gly Cys Ala Cys Cys Ala Ala Gly
320 965 970 975
322 Ala Gly Ala Thr Thr Thr Gly Ala Gly Ala Thr Gly Ala Cys Thr Cys
323 980 985 990
325 Thr Thr Cys Cys Ala Thr Thr Cys Cys Ala Gly Cys Ala Gly Thr Thr
326 995 1000 1005
328 Thr Gly Ala Ala Ala Thr Cys Cys Ala Gly Gly Gly Thr Ala Thr Thr
329 1010 1015 1020
331 Gly Gly Ala Ala Ala Cys Thr Ala Thr Cys Ala Ala Cys Ala Ala Thr
332 1025 1030 1035 1040
334 Gly Cys Cys Ala Thr Cys Ala Ala Ala Gly Cys Ala Thr Cys Cys Thr
335 1045 1050 1055
337 Gly Gly Ala Gly Cys Thr Cys Thr Thr Cys Ala Ala Cys Ala Cys Cys
338 1060 1065 1070
340 Ala Gly Thr Thr Ala Cys Thr Gly Cys Cys Cys Thr Thr Ala Cys Thr
341 1075 1080 1085
343 Cys Cys Cys Ala Gly Thr Gly Thr Gly Cys Cys Thr Thr Cys Ala Ala
344 1090 1095 1100
346 Thr Gly Gly Gly Ala Thr Thr Thr Thr Cys Thr Thr Gly Cys Cys Ala
347 1105 1110 1115 1120
349 Cys Cys Ala Cys Thr Cys Cys Ala Gly Gly Gly Gly Ala Thr Thr
350 1125 1130 1135
352 Thr Thr Gly Gly Gly Cys Ala Thr Thr Thr Thr Cys Ala Gly Cys
353 1140 1145 1150
355 Thr Thr Thr Thr Thr Ala Cys Thr Thr Thr Gly Thr Gly Ala Thr Gly
356 1155 1160 1165
358 Ala Ala Gly Thr Thr Thr Thr Thr Ala Ala Ala Cys Thr Thr Gly Ala

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/781,796B

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Input Set : A:\EP.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; Xaa Pos. 8